

Amendments to the Claims

The following listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Previously presented) A method of optical communication comprising:
 - providing a plurality of optical signals;
 - providing a plurality of data signals;
 - providing a plurality of optical modulators, each of the plurality of optical modulators:
 - receiving one of the plurality of optical signals and one of the plurality of data signals;
 - passing a desired portion of the received optical signal, the passed desired portion of the received optical signal having at least one predefined wavelength;
 - optically modulating the passed desired portion of the received optical signal responsive to the received data signal to provide an optically modulated passed desired portion of the received optical signal; and
 - outputting the optically modulated passed desired portion of the received optical signal to an optical communication medium.
2. (Previously presented) The method of claim 1 wherein optically modulating the passed desired portion of the optical signal comprises frequency modulating the passed desired portion of the optical signal.
3. (Previously presented) The method of claim 1 wherein the at least one predefined wavelength is different from the at least one predefined wavelength of desired portions of optical signals passed by others of the plurality of optical modulators.
4. (Previously presented) The method of claim 1 wherein each of the plurality of optical modulators has a different pass band, and wherein the passing and

the optically modulating comprise passing and optically modulating the desired portion of the optical signal within the pass band of the optical modulator and not passing and not optically modulating other portions of the optical signal outside of the pass band.

5. (Previously presented) The method of claim 4 further comprising filtering the other portions of the optical signal using the optical modulator.

6. (Canceled)

7. (Previously presented) The method of claim 1 wherein providing a plurality of optical signals comprises:

dividing a source optical signal into the plurality of optical signals.

8. (Previously presented) The method of claim 1 further comprising combining the optically modulated passed desired portion of the optical signal of each of the plurality of optical modulators before the outputting, wherein the optical communication medium comprises an optical fiber.

9. (Currently amended) A method of optical communication comprising:
providing an optical signal;
providing a data signal;
receiving the optical signal and the data signal within an optical modulator;
encoding the data signal upon at least portion of the optical signal by optically modulating at least the portion of the optical signal using frequency modulation; and
outputting at least the portion of the optical signal to an optical communication medium after the encoding, wherein the optical modulator comprises a filter having a pass band, and wherein the encoding comprises frequency modulating at least the portion of the optical signal within the pass band.

10. (Canceled)

11. (Currently amended) The method of claim ~~10~~ 9 further comprising filtering other portions of the optical signal outside of the pass band using the optical modulator.

12. (Original) The method of claim 9, wherein the receiving comprises receiving at least the portion of the optical signal within an optical modulator having a filter frequency, and the encoding comprises frequency modulating the filter frequency.

13. (Previously presented) An optical communications method comprising:

dividing a source-light beam into plural carrier-light beams;

modulating said carrier-light beams responsive to respective data signals to yield plural encoded-light beams, wherein said encoded light beams have different respective encoded-light wavelengths; and

combining said encoded-light beams to yield a multiplexed-light beam, wherein said combining step comprises frequency-multiplexing said encoded light beams.

14. (Original) The method of claim 13 further comprising injecting said multiplexed-light beam into an optical communication channel.

15. (Canceled)

16. (Previously presented) The method of claim 13 wherein said carrier-light beams share a common carrier wavelength.

17. (Previously presented) The method of claim 13 wherein said carrier-light beams have different respective carrier-light wavelengths.

18. (Original) The method of claim 17 wherein each carrier-light wavelength of a respective carrier-light beam is closer to the encoded-light wavelength of the respective encoded-light beam than to the encoded-light wavelength of any other of said encoded-light beams.

19. (Previously presented) An optical communication system comprising:
a plurality of optical modulators adapted to optically couple with a plurality of optical signals and an optical communication medium, wherein each of the plurality of optical modulators are configured to:

- receive a data signal;
- pass a desired portion of the coupled optical signal, the desired portion having at least one predefined wavelength;
- optically modulate the passed desired portion of the coupled optical signal having the at least one predefined wavelength responsive to the received data signal to provide an optically modulated passed desired portion of the coupled optical signal; and
- output the optically modulated passed desired portion of the coupled optical signal for application to the optical communication medium.

20. (Previously presented) The system of claim 19 wherein the optical modulators are configured to frequency modulate the desired portions of the coupled optical signal.

21. (Previously presented) The system of claim 19 wherein the optical modulators are configured to pass the desired portions of the coupled optical signal having respective different wavelengths.

22. (Previously presented) The system of claim 19 wherein the optical modulators have respective different pass bands, and the optical modulators are configured to pass and to modulate the desired portions of the coupled optical signal within the respective pass bands and to not pass and to not modulate other portions of the coupled optical signal outside of the respective pass bands.

23. (Previously presented) The system of claim 22 wherein the optical modulators are configured to filter the other portions of the coupled optical signal.

24. (Canceled)

25. (Previously presented) The system of claim 19 further comprising a divider configured to divide a source optical signal into the plurality of coupled optical signals.

26. (Previously presented) The system of claim 19 further comprising a combiner configured to receive the optically modulated passed desired portions of the coupled optical signal from the optical modulators, to combine the optically modulated passed desired portions, and to provide the optically modulated passed desired portions to the optical communication medium, wherein the optical communication medium comprises an optical fiber.

27. (Previously presented) An optical communication system comprising:
a light source for providing a source-light beam;
an optical divider for converting said source-light beam into plural carrier-light beams;

a modulator array for converting said carrier-light beams into encoded-light beams, said modulator including means for receiving plural data signals, said modulator array converting each of said carrier-light beams into a respective one of said encoded-light beams as a function of a respective one of said data signals, wherein each of said encoded-light beams has a respective encoded-light wavelength, no two of said encoded-light beams having the same encoded-light wavelength; and
an optical combiner for combining said encoded-light beams to yield a multiplexed light beam, said optical combiner frequency multiplexing said encoded-light beams to yield said multiplexed-light beam.

28. (Original) The system of claim 27 wherein said optical combiner injects said multiplexed-light beam into an optical communications channel.

29. (Canceled)

30. (Previously presented) The system of claim 27 wherein said carrier-light beams share a common carrier-light wavelength.

31. (Previously presented) The system of claim 27 wherein said plural carrier-light beams have respective carrier-light wavelengths, no two of said carrier-light beams having the same carrier-light wavelengths.

32. (Original) The system of claim 31 wherein the carrier-light wavelength for each of said carrier-light beams is closer to the encoded-light wavelength of the respective encoded-light beam than to the encoded-light wavelength of any other encoded-light beam.

33. (Previously presented) The method of claim 1 wherein the plurality of optical signals have different wavelengths.

34. (Previously presented) The method of claim 1 wherein the plurality of optical signals have the same wavelengths.

35. (Previously presented) The system of claim 19 wherein the plurality of optical signals have different wavelengths.

36. (Previously presented) The system of claim 19 wherein the plurality of optical signals have the same wavelengths.